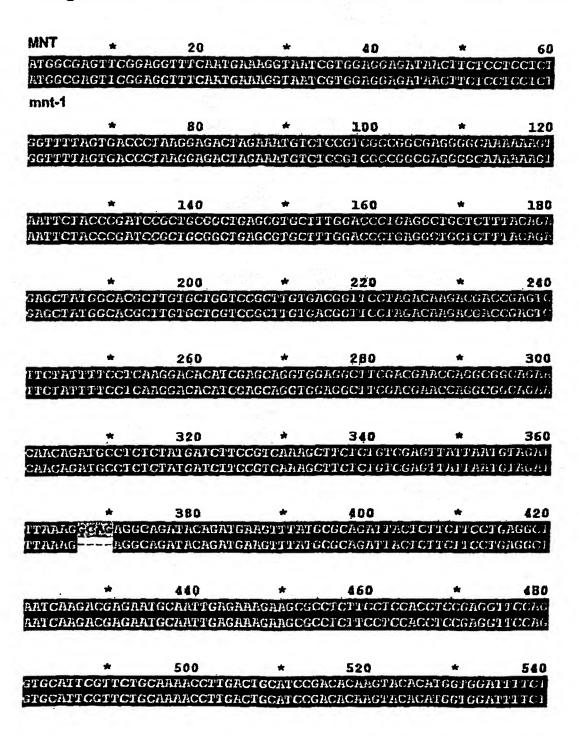
REPLACEMENT SHEET 7/51

Figure 6

Alignment of w.t. MNT and mutant mnt-1 cDNA



REPLACEMENT SHEET 8/51

	*	560	*	580	100E 1	600
GTTCTTI	lggcgh(CATGCGGATGA	ATGTCTCCCA	CCTCTGGATI	TGTCTCGAC	AGCCTCC
GTTCTTA	GGCGA	CATGCGGATGA	ATGTCTCCCA	CCTCTGGATE	TGTCTCGAC	AGCC1'CCC
	*	620	*	640	*	660
		etigchaagga: Ettgchaagga:				
MOTORAL	MG11M	3116CHMGGR	THEORIGOR	AMTGAGTGGC	STATE CAGACI	HIAMAIN (
	2 4	680		700		720
CGGGGTC	RACCAC	GGAGGCATTT	CTACAGAGT		NETTTGUTAC	
		GGAGGCATTT(
2 2 2 2 7 7 2	*	740	*	7,60	*	780
		GCGATGCGTT1 GCGATGCGTT1				
		800	*	820	,	840
		CGATGCGACAI				
GGTGTAA	GGCGTG	CGATGCGACAL	CARGGAARC	GTGCCGICIT	CTCTTAINTC	TAGCCAT
			10.0		77.00200	
NGC BUYES	*	860 GAGTACTGGC	*	880	*	900
		CAGTACTEGC				
	*	920	*	940	*	960
		ИИСССИЕСИСС				
ACAGTCT	ACTACR	AACCCAGGACG	AGCCCATCT	EAGINETATING	NICCGTTCGA	TCACIVI
	*1					
TUCCTON	*	980 AGRATARCTAC	#	1000	*	1020
		AGANTAACTAC				
			· , '			
	*	1040	*	10.60	di t	1080
		AGCAGAGGTTT				
जसराजराज्य	717510	AGCAGRGGTTT	AUTGGURUM	TICHTE GEGAN	victoricatelic	16724 (904)
	*	1100	*	1120		1140
		ANTCRARGIGG		AGG1 GAGATO		TCLAGI
		AATCAAAGTGG.				

REPLACEMENT SHEET 9/51

	*	1160	*	1180	*	1200
		ATAGAGTATOT				
ATTCCT	CGACCTC	ATAGAGTATCT	CCGTGGAAA	GTAGAGCCAG	CICTUGCIC	TCCTGC1
	*	1220	*	1240	*	1260
		CAAT GCCTAGG				
TTGAGT	CCTGTTC	CHATGCCTAGG	CCTARGAGG	CCCAGATCAA	ATATAGCACC	TTCATCI
	*	1280	*	1300	*	1320
		TGCTTACCAGA				
CCTGRCI	CTTCGE	TGCTTACCAGA	GAAGGTACA	ACTRAGGCAN	ACATGGACCO	TTTTACCE
	*	1340	*	1360	*	1380
		CARGGGTCTTG		GRATACTCGA		
GCMAGC	CACIUI	CHAGGGTCTTG	CAAGGTCAA	GANTACTCCA	CCTTCAGGAC	GAMACKI
	*	1400		1420	*	1440
ACTGAGI	GTGTAG	AGTGTGATGCT		TCTGTTGTCTC	GCAATCTTC	
ACTGAGI	4GTGTAG	AGTGTGATGCT	CCTGAGAAT	TCTGTTGTCT	GCAATCTIC	EGCGGET
	*	1460	*	1480	*	1500
		ACGIGGITICG	GGTTCTAGA	AGATATGGAT		GATGTCC
Catcaty	erggttg	ACGTGGTTTCG	GGTTCTAGA	ACATATCGATO	CTGAGAACTG	GATCTCC
	*	1520	*	1540		1560
		MACCTACTTAC				
TCAGCCI	AGGCATG	ANCETACTING	RCAGATTTG	CTCTCCGGCT	TEGGACTAL	CATAGAI
	*	1580	*	1600	*	1620
		ACCGGATACCT!		CATTCATCATC		
CCATCC	CATGGIC	RECGENTRECT	PTTTATGAC	CATTCATCAT	CACCITCIAT	GCCTCCA
	*	1640	*	1660	*	1680
		GTGATTCAGAM				
AAGAGAF	ATCTTGA	GTGATTCAGAA(GCAAGTTC	GATTATCTTGC	TARCCEGTG	GCAGATG
	*	1700	*	1720	*	1740
ATACACI	CTGGTC	TCICCCTGNAGI	TINCATGAA:	CTCCI AAGGI	ACCI GCAGCA	MACTGAT
BTACACT	CTGGTC	TCTCCCTGAAGT	TACATCAN	POTCOTARGET	ACCIGCAGC	MACTIGAT

REPLACEMENT SHEET 10/51

	*	1760	*	1780	*	1800
		GGCGATGCAAT				
CONTON	CT CCAVAL	GGCGATGCAM	(CAMAtatataAtio	AGOGRATATO	CONTENT OF MAIN	VIGGICIY/
	*	1820			*	1860
		CTGGTGGTAAC				
TOGNOT	ONOTHIL	001001AAC	A CONTRACT OF THE PARTY OF THE	CO1001CO1C	CITIORITI	111110110
CARCTIC	CTCRATC	1880 CTCMAGCGCAF	GCTCAGGCT	1900 AGGGRGGRAG	TARCAMBACA	1920
		CTCAAGCGCAA				
l v						
	*	1940	*	1960		1980
		RGRCAGCAARG				
ACGATA	CANGAGE	RGACAGCAAAG	TCARGRGAL	GGGAACIGCA	GGCTCTTTGG	CATTCCI
	*	2000	*	2020	*	2040
		TGAATGGGACA TGAATGGGACA				
		2060	*	2080		2100
CTCCC	eccenn	CACACIMACA				111
		CACAGATAGCA				
	*	2120	#	2140		2160
		CARACGATCAT Charcgatcat				
HEGYLOR	RRRUCKA	CARRCGATCAT	Ceterne	BUNNERCCAL	ICCHGRC1 AM	IMMICCI
DI INCOC	* ************************************	2180 CTCARECGERA	*	2200	*	2220
		CTCAAACGAHA CTCAAACGAHA				
	*	2240	*	2260	*	2280
		TTGGCCGTTCA		CHARGTICC		
CAGGGAI	VITGERC	TTGGCCGTTCA	GTGGATCTT	CARAGTTCCI	IAAACTATGAC	GAGTT A
	*	2300	*	2320	*	2340
GTCGCT(PAGCTGG.	ACAGGCTGTTT	engincature	GAGAGTTGAU	egoloctrag	ARAGAI

REPLACEMENT SHEET 11/51

*	2360	*	2380	*	- 2400
			ATGAIGCTTGI ATGATGCTTGI		
					y/40.380 , 5/5
*	2420	*	2440		2460
			atatacacgai atatacacgai		
*	2480	*	2500	*	2520
			Gragragcagi Gragragcagi		
	¥			SEQI	D NO: 55
*	2540	*	2560	*	2580
			TCATTGTCCAG TCATTGTCCAG		
 				Santa Maria	ID NO: 5

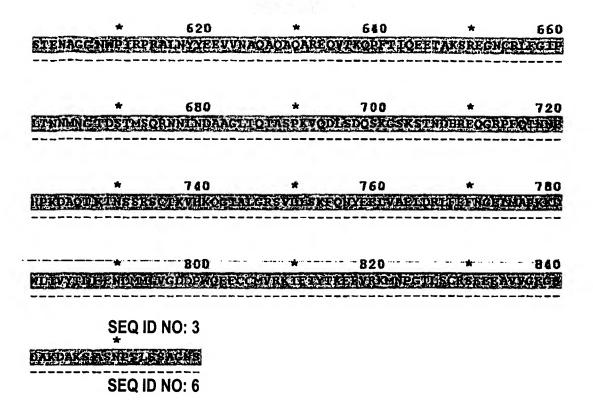
REPLACEMENT SHEET 12/51

Figure 7

Alignment of w.t. MNT and mutant mnt-1 protein

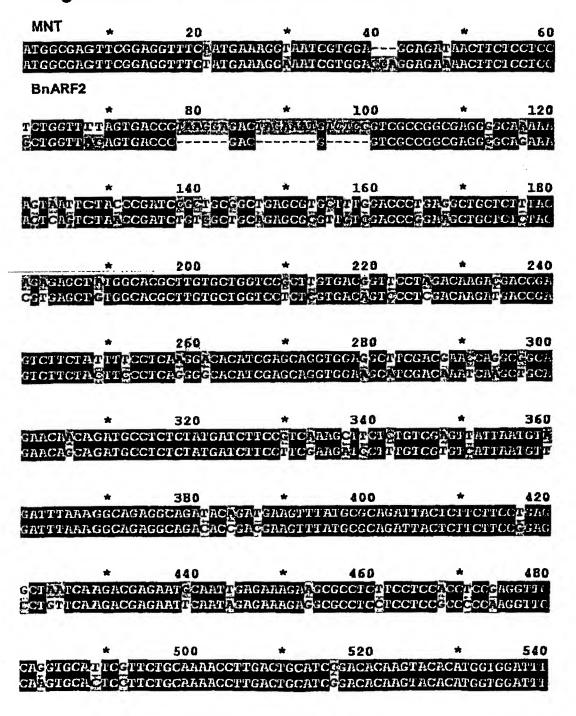
MNT	*	20	*	40	•	60
MASSEV	SMEGHING	GDNFSSSGFSD	PKETRIIVSVA		RSAAAFRALDI	
MASSEV	SMKGNRG	GDNFSSSGFSI	PKETRIVSVA	GEGQKSHSTI	RSAARERALDI	JEARLYR
mnt-1						
PATERIUM CO	MADRAVORU	80	*	100	*	120
		PRODDRYFYFE PRODDRYFYFE				
C) C) C)		I I I I I I I I I I I I I I I I I I I	VOILTEGATUR	Thomas Void	THILLESKELK	MATHED
	*	140	*	_ 160	*	180
		TILDENDIE			Carried Street, Street, or other designations of the last of the l	THEGE
WAKOIO!	KLAKK	LEFTRLIGTRM	OLRKKRIEN	IRES REJRE	KD	
	*	200		220	*	240
y artenes	in alternation	Magoppaori	MARCH TOTAL	रकाम क्रमान्छ।	REHILEOSGWE	VEVEEK
-	AND THE PROPERTY OF THE PROPER		The second secon			·
	*	260	*	280	*	300
REVACED	TOTAL PROPERTY	THE REST OF THE PARTY OF THE PA	AMROOCHVES!	STATE SHEATH	CYCLVI VI	ETGENES
		200	y (1) (1)	240		242
HOUSE TO THE	TO CELE	320 EPEDOVIESO	TANDO EN ENTERE	340 KMRFEDERAP	PARTE TO S	360
BELLEVINE						300000
				0.0		
	n Tanan kan	380	*	400		420
ENVENE	ALCO TAKE	OUTE 13 PTP N	SRKSAMP AT R	MARK STREET	PWEKE KKE KE	MARKE
-	*	440	*	460	*	480
PESSMER	HECTTK	MADEGRASED	RALOGORA	ERTKHTERY	ecdapensvy	QSSAU
	*	500	*	520	*	540
DDKADAA	ECSRRYC	SEHWASSARID	Dicklidings?	GTN TOP SHO	ORIDE YOUSE	PEMPA
	*	560	*	580	*	600
KRILSDS	EGKEDYI		SLKLHESPKY		RCHYKYSEYE	VENCE
			رائي آن استان فيكر نوينونيون و المخصوصة 			

REPLACEMENT SHEET 13/51



REPLACEMENT SHEET 14/51

Figure 8 Alignment of MNT and BnARF2 cDNA



REPLACEMENT SHEET 15/51

*	560	*	580	*	600
TCTGTTCTTAGGCG					
		(a) (a)			
*	620	*	640	*	660
CCEACTCA GAGTT <i>I</i> CCIACTCA <mark>GAGTT</mark> I	GTTGCAAA,	Gat Sigcato	CVVGGGVG1	GCCENTICEC GCCENTICEC	ACATAI
* TTCCGGSGTCAACCA	680	*	700 1611666116611	*	720
TTCCG					
ENNAGGUI GUI	740 GGCGAVIGC	*	760 Tyrregeses	AGRATGGAGA	7 B O
angaget est ech					
			200		0.40
STREETGTAAGGCGT	CCEMICCE	CHECKICGM	B20 Mediceell	CITCICITAT	840 MCP160
стфсстсталсссст	GCMARGOS	engerneem	Misuecelli	C CIC FGTTAT	ATCLARGO
*	860	*	880	*	900
Capagcatecatet Cagagcatecatet	GGRGTATIO	CCCVC GCC I	GGCATGCGA	TTTCARCAGE	CACTATO
engasem sem er g	ALCONOTAL IN	10040	occaçao.	. 50	, <u>,</u>
	920_		940	*	960
tttacagtctacta tttacagtctacta	AMACC SAGG	inchagecciti inchagecciti	'C <mark>T</mark> GAGTTTA' 'CĀGAGTTTA'	ITGTTCCGTT ITGTTCCGTT	gaicag Baicag
*	980	*	1000	*	1020
iata <mark>e</mark> ggagio <u>e</u> eta iata <mark>e</mark> ggagioeet	AAGADIAAC	TACTCENTE	GCATGAGAT	PANNITCHGI PANNITCHGI	ATTTGRA
* GGCGRAGACGCTCCT	1040 <i>सामका</i> सम्बद्ध	*	1060 Ophvicesvice	* Grivenigh	1080
ggcgaagaggctcc,					
	1100		7700		77.66
CONACNAGGTGG CA	TTAG		1120		1140

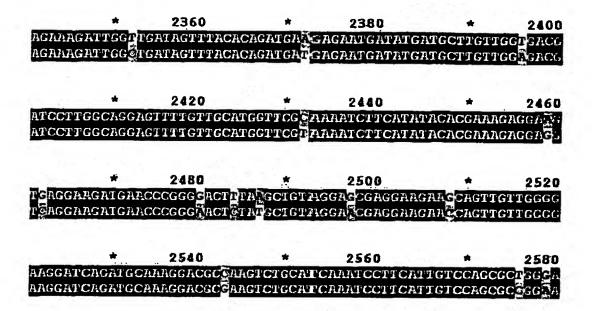
REPLACEMENT SHEET 16/51

	*	1160	*	1180	*	120
AGTATIC	CTCGA	CCTGATAG AGT	ATCT CCTGG	ARAGIAGREC	CAGCICIT	TCCICC.
AGPRAVATO	CHECK	CCTGRTAG AGTI	ane coches	ANGATAGREC	CACCROTT	TCCTCC
	*	1220	*	1240	*	1260
GCTTTGR	GICCIC	STECCHAT GCC1	PAGGCCTAAG	AGGCCCAGAT	CAAM AWAGO	Lectic:
GCTTTGA	GECCTO	et Accentacci	PROGCCTARG	AGGCCCAGAT	CTRAICHAGE	TT SIVICE
	*	1280	*	1300		1320
TCTCCTG	ACTOTI	Ceatechthe	acignace.	CHECT HAGG	CHARCATGGA	CCCTITI
COLOGE	RCTCHI	CSATGCHEAD	MEGENAGE	TOATCHARGG	CHARCATEGR	CCCTITI
	*	1340	*	1360	*	1380
CCACCAA	GEGRO	TRICANGGGTC	TTGCAAGGT	CRAGARTACI	CGACCTTGAG	GACGRAI
sec sevin	en seste	THICARGGET	TIGCARGET	Chagaatace	CONCETTORS	MCCMM
		• 1919 10 11 11 11 11 11 11 11 11 11 11 11 11	* **			
	*	1400	sk .	1420	*	1440
CATACTO	AGAGTG	TAGACIGICAT	GCTCCTGAG	HATTOT STTG	ELECVETC	PREMERS
SAVIGITIES	RETREVES	TAGA TIGGGAT	een ceners	क्र क्रम एक्ट्रिस कर स	GIRECONNIC	SICH SI
	*	1460	*	1480	*	1500
GRIGATG	AMARGG	ttgregtegtt Ttgr <mark>egt</mark> t	TOGGETTOT	AGMARIATO	ATCHERON	CTGCAT
SHIGHTG	u Suure e	MICKLE STEWN	TUATERITOTA	Well was to the		CTGGAT
	*	1520	*	1540	*	1560
PCCTCAG	STREEC GREEC	atg <mark>a</mark> accpact atg <mark>g</mark> accpact	TACACAGATI	PIGCIEICEG	CTTTGGGAC	AACATA
recreme.	ST MARIE	MI O MECT ACT		JISON I JIO 1 BK	CITIGGGRO	innenta
	*	1580	*	1600	*	1620
GAACCA	nonec	gt Ca <mark>gos</mark> gata Gt Ca <mark>toa</mark> gata		MOCEUWITATE	ANICAL SACO	TOLETO
			100	1660	*	1680
Sance Du	*	1640	nchanhaece	TOTAL STATES	TO TO THE COURT OF THE	OD OTO
		CTICAET GAT				
		ichiguedene Gebeurene Gebeurene		ngiv <mark>i gna</mark> ta		CAGICG
<u>G</u> eneenne	*	CTICAET GAT	# *	<u>neitt^een<mark>a</mark>ta</u> 1720	TCTTGCTAAC	1740

REPLACEMENT SHEET 17/51

	*	1760	*	1780	*	1800
CTGATG	CETCTET	CCAAGGGCEA	i gcartett	ARATACEGES	AATATECTET	TOTHANI
TCTGATG	CETCIBI	cernege at h	Gecana See	m <mark>rnce</mark> scei	ARTES CTTT	CCCICCI
	*	1820	*	1840	*	1860
GT CHAT	CGRCTGR		GGTARCTGG	CARTACGTC	CACGTGCTTI	
COACTE	CGACTGA	Caricte 31	GGSAACTGG	CCANTACGTC	Cacgigci 🗓 i	MATTAN
		1880		1900		1920
Navelge	anersen		eeed ween	Hegenheen	AGCINIGHT TAC	
	AAG GGT			CAGGCTAG	AGCNIST ENC.	MINNE ST
		2040	•	1960		1980
WACTER SE	- CONTRA	1940 Garcaccaca	CRECREREL	CAMORGA TOGG	GARCIGORGE	on enviro
CC-115CG	GTCG-TR	CARGAGGAGG	CAGCAAAG	Cargaga <mark>ë</mark> gg(GARCIGCAGG	CTUTTE
		0000		9000		2040
achanico.	CTC	2000	ATCCCACAC	2020 Астолисејан	телелелен	
GCATTCC	HOLLETS	ARCARCETGA	ATCGGRCAG	PACETOR	ST'CT'CAGAGA	MCRADI
				0056		0100
SONTOR	*	2060	*	2080 PACCAMAGGIE	*	2100
TGARTGE	Secrece	SSOATE SABB	AGATEGEAT	CACCARAGGT	CAGGARCTT!	couraco
TGTU.I G.						
			- 0			
	*	2120	n Gorrena	2140 TGN CAGGG	A CHACAMULA	2160
RGI CARA	AGGGT CA AGGGT CA	AARTCENCAA AAATCEACAA	AGGATCATC	TGRECK GGI	SACCATTE	C GT
2000	11900101.					
	*	2180	*	2200	*	2220
A PART SO	TCATCCG	ANGGARGA O	BARCOMAHAC	earchcaigh Barctcaigh	ACCACCECC	OUARGO DARGOA
GITATA	ECN1 COG	Migricon IC	ancennus.		moonsgrao.	
	*	2240	*	2260	*	2280
THE REAL	CORCE	APTGCACTI'G	eccentrover	rggatet <mark>e</mark> ter rggatet e ter	BARGTTCCAM	MCTATG
in all alter	. जगल ल ह		Neces Strenger			
	*	2300	*	2320	*	2340
	Andrew Control of the			GTTCAMTGGA		
13161623162 # #	OC 17 17 17	A: MT. HOLD IT.		GTTCAATGGA		

REPLACEMENT SHEET 18/51



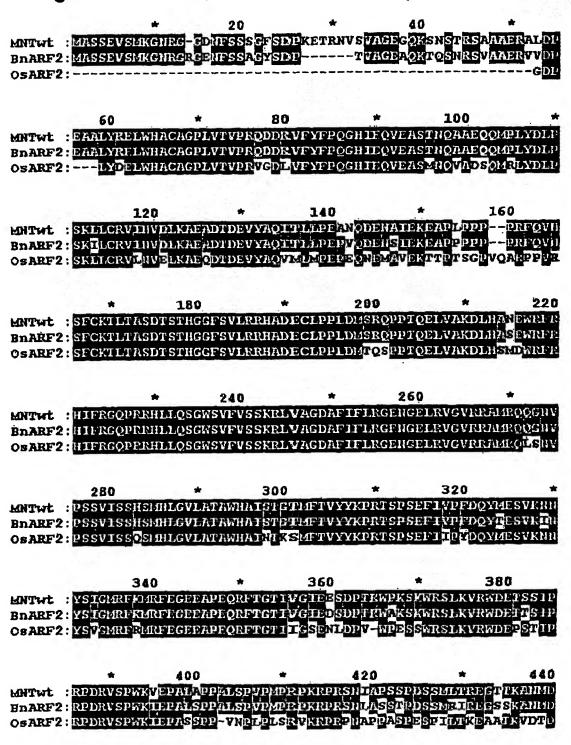
SEQ ID NO: 55

ACTCTTAA ACTCTTAA

SEQ ID NO: 9

REPLACEMENT SHEET 19/51

Figure 9 Alignment of MNT, BnARF2, OsARF2 proteins



REPLACEMENT SHEET 20/51

